

Amendments to the Specification:

✓ Please replace the second full paragraph on Page 8 of the specification, beginning on line 16, with the following:

A1
Controller 400 includes a rate controller for each data class. Thus, for voice cells from voice queue 309, requiring a fixed transmission rate, controller 400 has voice rate controller 403. And for workstation cells output from queue 206 310 requiring only a variable transmission rate, controller 400 has a workstation rate controller 402. Both voice rate controller 403 and workstation rate controller 402 continuously provide cells to cell selector 404. As will be discussed in greater detail below, cell selector 404 in turn transmits cells to another switch 405 via channel 313.

Please replace the first full paragraph on Page 10 of the specification, beginning on line 12, with the following:

A2
The following example further clarifies the queuing control of one embodiment of the present system. Referring to Figure 3, suppose telephone 307 requires a fixed bandwidth (BW_F) 302 data rate of 1,000 cells per second to maintain communications with other telephones in system 20. Workstation 314 has a variable bandwidth (BW_V) 303 controlled by congestion controller 311 and rate controller 315 of 1,000 cells per second. Under normal conditions BW_A 306 is 2,000 cells per second and handles all data from telephone ~~204~~ 307 and workstation 314. Now suppose BW_A 306 is reduced to 1,500 cells per second. Processor 401 detects this change in BW_A 306 and adjusts R_1 304 to maintain the required voice rate of telephone 307 of 1,000 cells per second. Processor 401 calculates the remaining available bandwidth for workstation 314 as 500 cells per second and adjusts R_2 305 and cell selector 404 to transmit data from workstation 314 through channel 313 at a rate of 500 cells per second. Congestion controller 311 and rate controller 315 adjust BW_V 303 such that queue 310 maintains its quality of service. During periods of network traffic congestion, when network traffic demand exceeds the network's bandwidth capacity, servicing algorithms are typically employed to discriminate between traffic classes in order to allocate bandwidth. Delay is managed by properly sizing the queue depths and prioritizing transmission within a class based upon a measure of the time that a cell has been in the network as, for example, by use of time stamps and hop counts.